

HAYSTACK FIRE

AK-FAS-111196

June 18-June 30, 2021



INCIDENT SUMMARY

Alaska Black Team, Type 2 Incident Management Team

Ed Sanford, Incident Commander

Tom Kurth, Deputy Incident Commander



INCIDENT NARRATIVE

The Haystack Fire was ignited by a lightning strike on June 7th. Resources were unable to locate the fire at that time. There was warm and dry weather the week leading up to June 14th when the fire was discovered by Air Attack with an initial report of 3-4 acres running and torching. The fire originated on State of Alaska Department of Natural Resources managed lands within a Full Fire Management Option response area. A Critical Fire Management Option response area which includes the community of Haystack is approximately one mile to the south and At Your Own Risk Road is approximately 5 miles to the south from the fire. A helicopter, fire bosses and smoke jumpers responded. On June 15th, the fire displayed extreme fire behavior with crown runs, short range spotting, and backing. Aerial resources were used extensively to support crews on the ground. The fire was spotting over the line and jumped a fuel break. A Type 2 Incident Management Team (IMT) was ordered, and the Alaska Black Type 2 IMT began mobilizing. On June 16th, the fire exhibited extreme fire behavior with short crown runs, short range spotting and flanking. Due to control efforts on the southern portion of the fire, the fire burning into hardwoods in the “bowl” of the fire, running into the Frost prescribed fire from 1999, and precipitation received, the fire had minimal movement on June 17th.

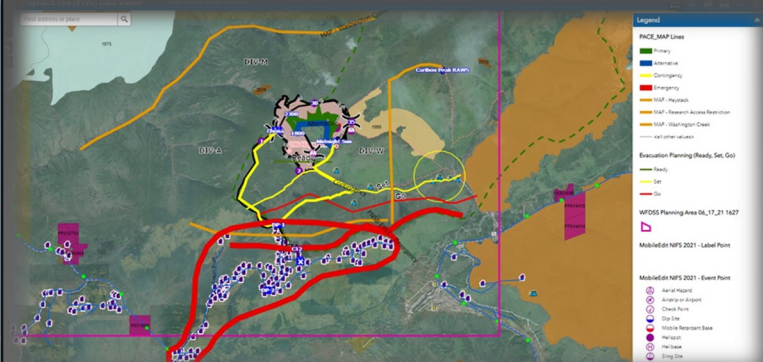


The Alaska Black Type 2 IMT assumed command of the incident from Incident Commander Type 3, Zane Brown at 0800 on June 18th under a delegation from the Alaska Division of Forestry Northern Region, the Bureau of Land Management Eastern Interior Field Office, and the Bureau of Indian Affairs Alaska Region. The IMT established the Incident Command Post at the Tanana Middle School. The strategy was to apply direct suppression tactics and cold trailing where feasible to accomplish 100% containment of the fire. The two features to take note of that aided in suppression efforts was the hardwood fuels that were present in the “bowl”, and even more notable was the Frost prescribed fire from 1999. The fire made a run on June 16th and hit the burn scar where fire behavior decreased progression significantly. Spotting occurred into the fire scar, but the fuels were not receptive for any fire growth and some extinguished without suppression efforts. The rest were able to be suppressed with without resistance to control, however if these spots where outside the fire scar there was potential for large fire growth.

The community of Haystack remained threatened and was in “Ready” evacuation status during the tenure of the IMT. Evacuation “Set” and “Go” lines were established for Haystack and At Your Own Risk Road, but the fire never progressed past those lines.

The ability to receive crews from the Lower 48 was critical to containing the fire and securing the fire-line before it was tested by high fire danger weather. The Caribou Peak Remote Automated Weather Station, approximately 2.5 miles northeast of the fire received rainfall on June 19th through the early morning of June 21st. However, there was a “Red Flag Warning” issued for frequent lightning (Lightning Activity Level 4) on June 19th and another on June 24th for hot, dry and windy conditions.

On June 26th, the fire was called 100% contained. The IMT will transfer command back to the Alaska Department of Natural Resources Fairbanks Area Forestry on July 1st, 2021.



COMMAND

Summary

- The preseason rostering of the Alaska Incident Management Teams has paid considerable dividends with time and workload with team members and the Alaska Inter-agency Coordination Center. This facilitates team travel and incident arrival times. As is typical now with complexity levels and agency requirements, a long team was important in managing the incident and supporting a remote fire. The bulk of the suppression resources were spiked out on the fire and required extensive logistical support.
- The Incident Command Post (ICP) was located at Tanana Valley Middle School in Fairbanks, and the fire was located 18 miles north of Fairbanks. With the location of ICP at the school, cooperator and agency administrators were able to interface directly at the planning meetings. Cooperators included the Steese Volunteer Fire Department, Fairbanks North Star Borough Emergency Services, UAF Poker Flat Research Center, and Alaska State Troopers. Most notable was the presence of law enforcement, new to the detachment, who were interested and available for assistance.
- The WFDSS decision document was specific to full suppression control, implementing tactics to keep the fire to the smallest size possible. Initial attack forces established a good starting point for suppression approach and the team's approach. After 72 hours, Agency Administrators and team members met to discuss a common operating picture, shared risks, and determine the course of action to minimize lost acreage. Fundamentally, this was to keep the fire as small as possible, going direct along the fire edge and mopping up to the extent possible to keep fire from escaping and reduce firefighter exposure. Fireline was constructed on ground where slope and soil type would allow. The remainder of line was constructed by hand crews.
- Agency Administrators and Representatives were available and actively involved in incident oversight. Their insights, input, and availability made for quick resolution of questions and a significant incident success.

Significant Events

- An evacuation plan was identified early and developed by the AK IMT, Borough Emergency Services, Steese Volunteer Fire Department, and the Alaska State Troopers. This included the "Ready, Set, Go" model, which encompassed populated areas identified into evacuation zones.
- Public information was immediately posted through agencies, Fairbanks NorthStar Borough, AK Fire Info, with recorded daily operational updates through Facebook and public meetings.
- Suppression Repair was discussed early, a draft was developed in a timely matter. Coordination occurred between the resource advisors and fire operations. Much of this success was due to the onsite presence of the Resource Advisors throughout the incident.

COMMAND (Continued)

Significant Challenges and Resolutions

- The transition of the fire indicated it was 40-50% contained, possibly due to inadequate mapping capabilities and a smoke obscured perimeter. However, with better intel, the fire was assessed at 28% contained at the time of transfer of command. Adjustment of planning and resources required was adjusted early on and fulfilled with both Alaskan and Lower 48 crews.
- The limitation of ICP locations with facilities was a moderate challenge. Team members adapted to the size of the room available to continue the multiuse operations. The available connectivity facilitated virtual MS Teams applications.
- With a shortage of vehicles and priority was given to operations and logistics, many IMT members used their POVs.
- A policy of no per-diem allowed for state and federal employees, EFF, and AD working within 50-miles does not meet site standards. This policy tends to address workers who are on a work schedule that are day tripping as opposed to incident personnel who are assigned to an incident. Incident personnel are at ICP, using local facilities, and managing schedules with staff with daily planning requirements. All staff, regardless of distance from their homes, are using restaurants and facilities to minimize time away from ICP as there were no caterers available.
- Crews, most notably, Type 2 hand crews, are woefully short. Currently in Alaska, there are 9 agency crews, 3 contract crews, and 2-4 EFF. The Haystack Fire had the number of crews required for strategic approach. However, any other incident, particularly another similar complexity level, would have been unable to engage without taking from the incident.
- The incident had one COVID exposure early on. Individuals were isolated and rapid testing implemented. As a result, two close contact crewmembers were in isolation and further testing 5 -8 days later. Mitigations, except for masks, were in place. It does appear that most team members were vaccinated. Common precautions, such as hand washing, sanitizing, and social distancing should be continued to contribute to overall firefighting well-being.
- Incident Command Teams continue to place a high reliance on a virtual environment. Scheduling, participating in, and conducting virtual meetings requires a facilitator and A/V equipment. We were fortunate to have both for this incident. However, it does require technical expertise and regular updating. Forward funding of these purchases is necessary to ensure familiarity pre-season and consistency from team to team with the equipment.



INCIDENT OBJECTIVES

- ◆ Provide for firefighter and public safety by assessing and mitigating risks to develop sound tactical operations. Ensure all resources have a clear understanding of assignments and associated hazards.
- ◆ Protect the Haystack Subdivision, structures along the Elliot and Steese Highway corridors, Poker Flat Research Center, and critical infrastructure.
- ◆ Maintain and enhance long-term strategic plan by identifying and implementing suppression options considering probability of success, firefighter exposure, risk management, seasonality, and resource prioritization and allocation.
- ◆ Maintain and enhance relationships with agency partners, cooperators, stakeholders, and public through the timely and accurate information exchange.
- ◆ Follow CDC, federal, state, and local Covid 19 mitigation guidance and protocol to reduce exposure and protect firefighters and the public from the virus.
- ◆ Support initial attack as requested by the Area.
- ◆ Treat all personnel with dignity and respect by providing a harassment free work environment.

Transfer of Command

- June 18th, 2021 @ 0800 hours from Alaska Division of Forestry
- July 1st, @ 0800 hours to Alaska Division of Forestry



FIRE WEATHER AND BEHAVIOR

Fire Weather Summary

The Haystack Fire was ignited by cloud-to-ground lightning on June 7th which smoldered for a week before being observed on June 14th. That week of the “holdover” was warm and dry without very much wind. Due to the smoldering in the upper Caribou Creek drainage, a column was finally observed and suppression forces responded with initial attack.

Overall, rainfall mitigated fire weather conditions which permitted containment activities to proceed. Rainfall was observed at the Caribou Peak RAWS on June 17th and on June 19th through the early morning of the 21st. There was a “Red Flag Warning” for “Lightning Activity Level” 4 on June 19th and another for hot, dry, windy conditions on June 24th.



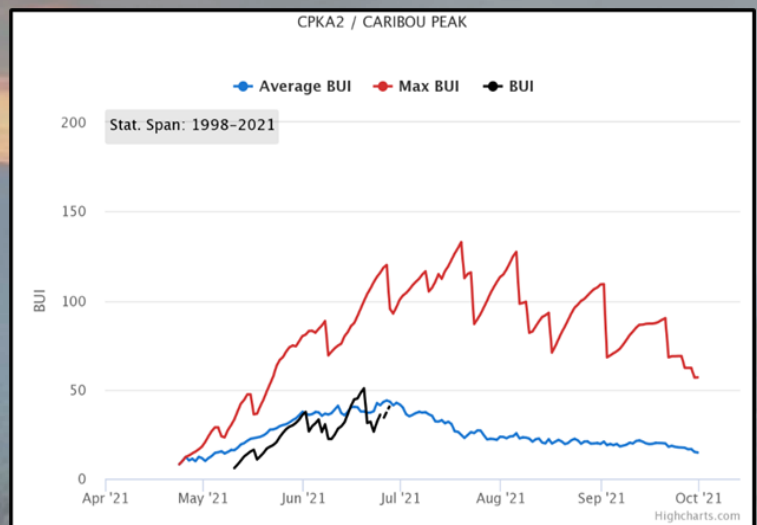
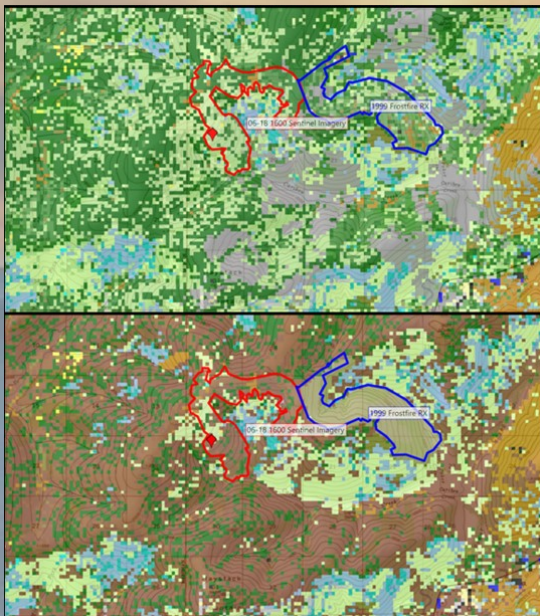
Fire Behavior Modeling Challenge

WFDSS analysis is an important part of the decision process. Since its introduction, WFDSS analysis tools have struggled to represent both individual fire growth events and probabilistic representations from FSPro on Alaska landscapes. This comparison of the default LANDFIRE Fuel Model depiction (top) with the edited Fuel Model classification (bottom) is from the vicinity of the Haystack Fire area.

In the top image, notice the gray shades that represent “Ice and Snow”. Instead, the bottom image was edited to represent those areas as forested with a mix of black spruce and hardwoods. Spruce fuels were reclassified to emphasize crown fire potential (dark brown colors).

The area outlined in blue is the 1999 Frost RX that was mistakenly identified as forest fuels. These combined changes produced a realistic distribution of fuel hazard in WFDSS analyses that the default landscape could not.

Three significant fire responses occurred during the time of the Haystack response. Haystack and Dry Creek/Zitziana both started on June 14th, while Straight Creek started on June 20th. All reference weather stations (Wein Lake, Nenana, Fairbanks, and Caribou Peak) showed Buildup Index (BUI) generally following the average trend, suggesting typically dry duff fuel conditions. Spruce Adjective generally very high for days of active fire growth.



OPERATIONS

Key Decisions

- Developing mop up standards based on fuel types, heat, and severity and right sizing the organization to meet objectives.
- Utilizing and keeping local area resources to staff heli-base and heli-spots.
- Establishing a heli-base located close to the incident allowing short turn around time and support.

Significant Events

- Wetting rain received on June 19th and 21st along with suppression actions aided in containing fire spread.
- Receiving hand-crews from the Lower 48 was critical in containing the fire in terrain inaccessible by dozers.
- Reducing the size of the Temporary Flight Restrictions at the request for the Fairbanks Federal Aviation Administration.

Notable Successes

- Maintaining 6-8 crews while still supporting initial attack in the area.
- Availability of helicopter managers to keeping air operations.
- Utilizing IR from a military satellite and UAS IR to accurately navigate to detected heat.
- The IMT supported 2 initial attacks for the Area.

Challenges and Resolutions

- Logistical support to the fire-line to keep up with demand. Once logistics was staffed appropriately the support to the line was improved.
- Having adequate crews to support line construction. The amount of fire-line to be constructed compared to fire size was unproportioned due to the shape of the fire. Utilizing line construction and mop up standard to accommodate for lack of crews allowed containment to increase.

Operational Strategy

- Full Suppression 100%
- 100% Contained June 26th

Line Statistics

- 1.6 miles of hose
- 5.8 miles of dozer line
- 7.5 miles of hand line
- 13.3 miles of total line
- 12.9 miles of contained line
- 0 miles of uncontained line



Air Operations-UAS

- 4,200 gallons of retardant
- 50 total flights
- 763 minutes flight time
- 16 hotspots found
- 2 pilots
- 3 pilot trainees

SAFETY

Key Decisions

- Implementing an incident within an incident simulation
- Operations using individuals with Alaska experience and Type 1 Crews

Significant Events

- 1 SAFECOM-sling load rigged improperly.
- 1 SAFENET-night time accountability for crew on Division missing, miscommunication
- One bear sighting at the lookout, bear encounter form completed and sent to AK BLM safety.
- Haystack lookout civilian shooting and made firefighters uneasy. Reported and dealt with by troopers.

Notable Successes

- Incident Within an Incident simulation was very helpful and always a learning moment that hold benefit to all.
- Excellent safety record throughout the incident.
- Utilized national priority trainee program and received a SOF2(T).

Significant Challenges and Resolutions

- Lack of line safety personnel availability, solved by converting on site TFLD to SOFR.
- Verify 3 days food water are in place for transition and order if as needed.
- ALMR trunking system-Constraints need resolution for out of state resources.
- Noise pollution at night at ICP led to poor sleeping for our employees sleeping in tents. Train, loud DoD traffic, sirens late night activity was constant. Poor sleep can lead to other health, safety and wellness problems. Consider sleeping in the future for ICP selection.

Safety Statistics

- 1 hernia
- 1 knee, treated on the line
- 1 minor dog bite, reported for rabies check
- 1 split lip

LOOKOUTS COMMUNICATIONS ZONES
LCES
ESCAPE ROUTES SAFETY



PLANS

Key Decisions

- Used new standardized virtual Check-in Form and E-Doc Box standards to align the AKIMT with current nationally consistent processes.
- Use of virtual employees to increase the overall capacity of section and build-in contingencies.
- IMT blanket authorization included use of POVs and personal laptops to address known shortages.

Significant Events

- The Structure Protection Plan for the Haystack community and Alaska Known Sites Database were both updated.
- MS Teams was used in the Situations unit for communication with virtual resources including daily tutorials for trainees from the lead GISS.

Notable Successes

- Use of Fairbanks area schools as ICP provides reliable internet connectivity and only one IT point of contact for all the schools.
- Use of virtual resources filled critical needs such as the online check-in and management of multiple MS Teams Meetings. Virtual staff addressed the initial workload while other sections members were traveling.

Significant Challenges and Resolutions

- The incident was initially created as part of an e-ISuite "Group." Removing it from the Group caused multiple failures. AKIMT ITSS worked with State Dispatchers and the e-ISuite Helpdesk to resolve issues. Future procedures suggested by the helpdesk is to leave the incident in the group.
- IMT unable to obtain high-quality copy machines were an issue for much of the assignment. Fortunately, the School (ICP) copier remained available to the Plans Section for producing the IAP.

Incident Training

- 30 trainees
- 11 priority trainees
- 3 PTB completed



PUBLIC INFORMATION

Key Decisions

- Identified local resource to assist with critical need for video/virtual meeting support as well as PIO duties. Technical Specialist is developing job description and list of needed equipment for AKIMT.

Significant Events

- PIO was granted access to the Haystack Community private Facebook group providing information about the upcoming public meeting and initiated a dialogue on current issues for the community.

Notable Successes

- Able to fill PIO section even amidst staffing shortages.
- Three trainees in the PIO section.
- State of Alaska provided funding to purchase equipment to support video production for virtual public meetings and virtual team meeting facilitation.

Significant Challenges and Resolutions

- Key IMT staff from other sections were not able to arrive in Fairbanks in a timely manner requiring sharing a position between PIO and Medical. The benefit was they were able to renew qualifications but challenged the PIO shop as medical incidents arose. There was no resolution to this challenge until IMT staff arrived.

Information

- 3 trainees
- 3 information boards
- 5 traplines stops with 546 miles driven
- 38 trapline contacts
- 4,000 social media likes
- 28,600 social media engagement
- 6,800 video views

LIAISON

Key Decisions

- Collaborative evacuation planning with multiple organizations and groups.

Significant Events

- At any given time there could be 30 researchers within the Caribou-Poker Creek Research Watershed adjacent to the fire-line scattered around with minimal cell coverage.

Collaboration of Cooperators

- FNSB sharing evacuation data on structures and residents.
- Incorporating Research Watershed values at risk into planning data.

Notable Successes

- Evacuation plan for Haystack and At Your Own Risk Neighborhoods
- UAF developing emergency procedures for researcher safety during high fire danger situations and evaluating need for fuels reduction around key research infrastructure.
- Strengthening cooperator relationships.



LOGISTICS

Key Decisions

- The use of Tanana School was key to our success due to the team's familiarity with this location and solid data connectivity.
- The use of food boxes as opposed to a caterer worked well on this incident.
- The addition of Logistics leadership at the staging area was critical to the flow of supplies.

Notable Successes

- Plastic carpet cover was installed during ICP set up to mitigate the cost of cleaning/ replacement of stained carpet.
- A yurt was used to expand the footprint of ICP. Placing the Supply phone number in the IAP for quicker response time to line orders.
- Cache workers on site as RCDM's improved delivery time. Multiple logistics section chiefs is beneficial.

Significant Challenges and Resolutions

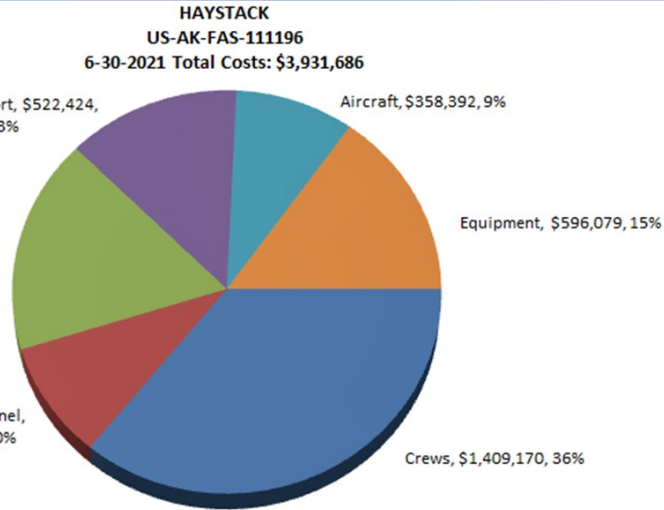
- NERV rental vehicles were not available in Fairbanks. The Alaska Division of Forestry ground support had 10 heavy duty pickups prepositioned at their office for the Alaska team on day one of the fire.

Logistics Statistics

- 219 A boxes, 26 B boxes
- 2 repeaters and 3 remote kits
- ICP and Staging
- 15,000' of 1.5" hose
- 10 Mark 3 Pumps
- 9 UTVs
- 20 rental vehicles
- 7 critical position trainees
- 3 priority trainees PTB signed off



FINANCE



Finance Summary

- Tracked-136 Overhead files, 54 Equipment packages, 10 Crews
- 1 LUA and several S#s
- Financial operations were in compliance with direction from agency representatives.
- Costs were updated daily and kept current.
- COMP / CLAIMS had 2 medical with 1 resulting in a medical demob.
- One pending claim for an ATV which will have to be settled/resolved at the local unit.
- Local resources such as hotels, restaurants, equipment, crews, overhead, fuel and supplies injected revenues into the local economy during this incident.

Significant Events

- Due to the national shortage of rental vehicles this incident had several vehicles hired on EERAs as well as vehicles with drivers on EERAs. This resulted in a large number of equipment packages for payment.
- Heavy Equipment was released on a Saturday afternoon and they could not transport their equipment off of the incident due to State of Alaska DOT regulations. This created a lot of confusion amongst the contractors and finance on what days they would be entitled for payment.

Notable Successes

- On site finance was able to get set up quickly and be operational. Having wi-fi capabilities allowed for a quicker set up of computers and desk top printer for the finance section.

Significant Challenges and Resolutions

- During the initial order for the team, a printer/copier/scanner for finance and planning was not included. We were however able to use the Tanana Middle School's printer/copier until we received one in finance.
- Initially there was not a system in place for micro purchasing. The Finance Section does not have a PROC so we could not utilize that capability. After some dialogue with the local unit we were able to establish a procedure and the local unit would do small purchases for us.



Progression

Haystack
AK-FAS-111196
6/29/2021

927 acres at 12:00 June 26, 2021



0 0.5 1 Miles

- 6/14/2021 11:41:00 PM
- 6/15/2021 1:18:00 PM
- 6/15/2021 11:59:00 PM
- 6/16/2021 1:37:00 PM
- 6/16/2021 End of Burn Period

